

detected more than a trace of lime. Meanwhile he was continuing his examination of his Charters Towers granite, chemically and microscopically, in order to find out whether this triclinic feldspar, which it contained, was a pure lime feldspar or was a lime and soda one, and also with which species of feldspar it might be associated.

Mr. Clarke's note concluded with the statement that if the occurrence of triclinic feldspars containing lime, in the granites at Charters Towers, was general, the suggestion that the calcite there resulted from the decomposition of lime feldspars would be most probable, and that the zeolite, too—the subject of his previous communication—owed its origin to the same source.

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## ON A THIRD SPECIES OF THE AUSTRALIAN TREE KANGAROO;

BY

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AN accident similar to that which last year brought to light a second species of *Dendrolagus* in Queensland, has quite recently delivered up to knowledge a third kind, intermediate in habitat but not in features, between *D. bennettianus* and *D. lumholtzi*. The dogs of some sportsmen hunting in a scrub near Herberton encountered and killed an animal which was recognised as a tree kangaroo, and the interest excited by the recognition fortunately led to the preservation of the skin, which after some time was presented in fair condition to the Queensland Museum by D. Mowbray, Esq., P.M., of Herberton. Of the specific distinctness of the animal represented by this skin from the red shouldered species, *bennettianus*, of the Daintree River, and the smaller *lumholtzi* of the Lower Herbert, there is no room for doubt, and under the suggestion of its tawny colour the writer proposes for it the name *Dendrolagus fulvus*.

*Sp. Char.* adult male.

Coronal crest between the ears; centre of radiation of the dorsal hair at anterior, third of the length of the body; form,

robust ; limbs, sub-equal in length and thickness ; size, superior ; fulvous, brown ; back and sides much pencilled with black ; from the hind neck to the occiput nearly black ; muzzle, black ; top of head and temples, rufo-fulvous ; facial ridge, a patch on the throat and one below the armpit pale buff ; hinder part of the arm and hinder edge of forearm and wrist, dull rufous ; mid-region of the leg, dark brown, defined above by a faint haunch stripe ; hinder lower part of shank and hinder upper part of metatars, bright buff ; upper base of tail with an obscure stain of chestnut brown ; beneath and inside limbs dingy buff.

The hairs of the back and sides are light yellowish brown, many of them entirely so, but most of them tipped more or less with black ; the black tips not being equally distributed the result is a streaky mixture of tawny yellow and black. Anterior to the centre of radiation, black tipped and wholly black hairs begin to predominate and yield on the nape a nearly pure black surface. The hairs of the upper surface lose their black tips entirely on the mid-line of the flanks, and, becoming yellower, pass into the impure buff of the under surface, which spreads with a redder tint on the hinder edge of the fore leg, and posteriorly extends over the base of the tail. The upper surface of the proximal half of the tail beyond the base is yellowish brown, passing gradually into the brownish black of the tufted end ; the lower surface is brownish black to near the base, and here a faint continuation of its hue upwards into the suprabasal stain shews the persistence of the generic pattern of colouring in this region. The dark brown tint of the thigh and knee fades as it passes down the front edge of the shank, and vanishes above the ankle. The inner surface of the ear is clothed with fulvous hairs and fringed anteriorly with rufous. The hands and feet are, as usual, black. The pads of the hind feet are very broad and short and are covered with rough irregular granulations. The fifth toe-nail reaches as far forward as the end of the pad of the fourth toe. The fourth toe-nail is—at least in one foot—compressed, regularly arched and acuminate ; in the other its form is somewhat less that of a prehensile claw. In the hand, which is armed with powerful claws, it is interesting to observe a distinct tendency to the separation of the toes into two groups, as in the native bear and some Phalangiers, but with this difference that in the present animal it is the two outer toes only which are in some degree opposable to the rest. A similar tendency is observable in *D. bennettianus*.

## MEASUREMENTS.

	mm.
Total length (tail imperfect) . . . . .	1481
Head . . . . .	151
Body . . . . .	645
Tail . . . . .	685
Tibia . . . . .	160
Fore arm . . . . .	154
Hind foot . . . . .	154
Fore foot . . . . .	102
Hind limbs, without feet . . . . .	220
Fore limbs       "       " . . . . .	196
Skull . . . . .	118

The forward direction of the hair of the neck in these animals is explained by their posture when asleep in the trees; they then sit with their heads and fore quarters bent down between their hind legs. In this position the direction of the hair from all sides of the summit of the back enables them to endure with less discomfort the incessant rainfall of their habitats.

SKULL—This is remarkable for the development of the parts lodging the olfactory organs. The nasal processes of the maxillary, and the nasals themselves, are broad, and together form a large olfactory chamber, while the frontals are extraordinarily tumid, rising into a double convexity from which the profile of the skull descends rapidly fore and aft. What the food of this species is we do not yet know, but something of a rough nature is indicated by the large deep and rough insertions of the muscles actuating the lower jaw. These are bounded by parietal crests which converge to a distance of 8 mm. from each other, and then sweep outwards to the exoccipital ridge, whence the depression is continued forwards to the root of the zygoma. The premolar is not very elongate, being equal in length to the first and half of the second molar; it is formed of two rather distant lobes connected by a ridge on the outer side of the tooth. The front incisors are relatively very large; the laterals small, equal, with elongate crowns and subtriangular faces of wear. The canines are very small and scarcely functional. Palate, entire.

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